



# Best Management Practices for Construction and Development Projects Spring Cavefish *Forbesichthys agassizii*

**Common name** • Spring Cavefish  
**Scientific name** • *Forbesichthys agassizii*  
**Federal status** • None  
**State status** • Endangered

## Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended to be used as a guide to manage habitat for a given species. If that is the goal, please contact the Department of Conservation for habitat management information. Because every project and location differs, following the recommendations within this document does not ensure that impacts will not occur to the species and additional information might be required in certain instances. Following the recommendations within this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

## Ecology

Spring Cavefish have a localized distribution from southern Illinois southward to central Tennessee and into southeastern Missouri. They inhabit caves, springs, spring runs and spring seeps throughout their range, but they are currently found in only one site in Missouri. Spring Cavefish usually stay underground after dawn but emerge into surface waters at dusk. They use their underdeveloped eyes to distinguish between light and darkness. These fish are specialists in their diet, feeding mainly on three species of amphipods (genus *Gammarus*). Spawning likely occurs underground between January and April. Adult Spring Cavefish typically reach a length of 1.8-2.6 inches.

## Reasons for Decline

Cave streams and springs are affected by activities on the surface of the ground. Any activity that reduces groundwater quality or quantity would negatively affect Spring Cavefish. Spring Cavefish are vulnerable to pollution from crop fields, pastures, septic tanks, sewage lagoons, chemical spills, urban runoff, toxic metal from mines, and livestock and poultry waste. In addition, activities that alter the water table, such as withdrawals from streams and wells for irrigation or other purposes may limit Spring Cavefish habitat.

## Specific Recommendations

Species like the Spring Cavefish are indicators of clean, healthy aquatic systems. Their presence suggests that the underground water supply is of good quality. Following these recommendations will avoid or minimize negative impacts to cave systems and the Spring Cavefish.

- Minimize sedimentation and chemical or nutrient-laden runoff into streams, sinkholes, caves and springs by implementing and monitoring erosion and sediment controls for the duration of the project.
- Establish and maintain forested buffers 100 feet wide along streams and around sinkhole and cave entrances. Take care to contain all construction debris to prevent its accidental introduction into caves, sinkholes or springs as a result of clean-up activities, run-off, flooding, wind or other natural forces.
- Dispose of chemicals, toxic waste, garbage and wash water from trucks in areas designated for such wastes. These sites should be located away from caves and sinkholes.
- If temporary roadways must be built, ensure that roadways are of low gradient with sufficient roadbed and storm water runoff drains and outlets.
- Ensure that chemical spills are quickly reported; proper steps are taken to mitigate damages; and ensure proper cleanup occurs.
- Have a spill plan in place before a spill occurs. Make sure materials needed to contain a spill are readily and quickly accessible.
- Protect sensitive wetland features and ensure that proper consultation and permitting are in place if construction activities may impact wetlands.

## General Recommendations

Refer to Management Recommendations for Construction Projects Affecting Missouri Streams and River and; Management Recommendations for Construction Projects Affecting Missouri Wetlands; and Management Recommendations for Construction Projects Affecting Missouri Karst Habitat.

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or [www.modot.mo.gov/ehp/index.htm](http://www.modot.mo.gov/ehp/index.htm) for additional information on recommendations.

## Information Contacts

For further information regarding regulations for development in rivers and streams, contact:

For species information:

[Missouri Department of Conservation](#)

Resource Science Division  
P.O. Box 180  
2901 W. Truman Blvd  
Jefferson City, MO 65102-0180  
Telephone: 573/751-4115

For species information and Endangered Species Act Coordination:

[U.S. Fish and Wildlife Service](#)

Ecological Services  
101 Park Deville Drive, Suite A  
Columbia, MO 65203-0007  
Telephone: 573/234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)

Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573/751-1300, 800/361-4827

[U.S. Army Corps of Engineers](#)

Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816/983-3990

[U.S. Environmental Protection Agency](#)

Water, Wetlands, and Pesticides Division  
901 North 5th Street  
Kansas City, KS 66101  
Telephone: 913/551-7307

## **Disclaimer**

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal laws such as the Clean Water Act and the Endangered Species Act, and state or local laws need to be considered for construction and development projects, and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.